AIR FORCE MATERIEL COMMAND

LEADING EDGE

June 2003

JSTARS — Maj. Michael Mras, sensor management officer, monitors activity while sitting at an operator workstation at Robins Air Force Base, Ga. Maj. Mras is one of the many 116th Air Control Wing service members who performs a very important role in detecting enemy ground movement and relays that information to both forces on the ground and other airborne assets. (U.S. Air Force photo by Ms. Sue Sapp)

AFMC: Going the extra mile

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AIR FORCE MATERIEL COMMAND
LEADING EDGE

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AFMC
AIR FORCE MATERIEL COMMAND

Cover stories

Cover photo of Senior Airman Eric Craft taking a moment before he proceeds to his next duty. (U.S. Air Force photo by Airman Edmund Gibbons) Cover design by Ms. Libby VanHook, Executive Editor.

4 — 19 AFMC: Going the extra mile in warfighter support

When the call came to support Operation Iraqi Freedom, the men and women of the Air Force Materiel Command responded. Extraordinary efforts including accelerated testing and fielding of new technologies, standing up new units and deploying to foreign soils, AFMC personnel stepped forward and showed their dedication in working toward a common goal — supporting the warfighter.

Mission Progress

Features

Departments Briefs

Read how Ms. Brenda Brummer, Kirtland AFB, N.M., distributes flags she made to show her support of the military on page 29.

JASSM testing moves into operational testing phase

EGLIN AIR FORCE BASE, Fla. — The Joint Air-to-Surface Standoff Missile recently graduated from developmental to operational testing, overcoming problems and concerns with fuse arming systems previously causing it to be decertified. Launched from a B-52H, JASSM flew slightly less than 200 miles and impacted its target at White Sands Missile Range, N.M. The successful flight test cleared JASSM's path to operational testing.

Based on the success of the test, the program was recertified for independent operational test and evaluation. Program managers expect to finish operational testing by the end of the summer.

— Reported by AAC Public Affairs

AFRL technology to aid team in shuttle probe

ROME, N.Y. — Air Force Research Laboratory developed technology that creates a visual timeline of events is helping Air Force Space Command's Space Analysis Division team members probe the Feb. 1 space shuttle breakup.

Experts recently installed Web-based Timeline Analysis System at the space analysis division's Colorado Springs facility. It combines data from various sources to create a visual timeline that could help team members better investigate the shuttle tragedy.

WebTAS can rapidly connect to diverse data sources and combine the data in multiple analytical and visualization tools, with the goal of providing alerts and warnings of developing situations.

— Reported by AFRL Public Affairs

Nozzle upgrades increase efficiency in 16T tunnel

ARNOLD AIR FORCE BASE, Tenn. — Upgrades to the nozzle in the 16-foot transonic wind tunnel test facility at Arnold Engineering Development Center here are expected to increase efficiency and savings in the testing of combat aircraft.

The nozzle is a flexible-wall, laval-type wind tunnel section positioned immediately upstream of the working section, where the model is placed. Fifteen pairs of electric motor-driven actuators, capable of providing a change from Mach 1 to Mach 1.6 automatically adjust the sidewalls — a key element in setting wind tunnel conditions.

Upgrades included replacing the electromechanic drum system with a modern programmable logic controller-based system that has a workstation and mouse as the operator interface. These improvements provide easier operation, faster and more reliable operations with reduced mechanical stresses, and increased system accuracy for better control of critical tunnel test conditions.

— Reported by AEDC Public Affairs

GPS satellite navigational system first in AFMC

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Pilots can now land here using the Global Positioning Satellite system thanks to Air Force Materiel Command instrument procedure specialists recently developed new instrument approach procedures.

The specialists developed GPS instrument approach procedures that promise additional operational capability and increased training opportunities for military and civilian pilots who use Wright-Patterson's runway. These procedures are the first of their type in AFMC and only the second in the Air Force. Travis AFB, Calif., was the first Air Force installation to develop and publish GPS procedures.

GPS is designed to provide continuous highly accurate position, altitude and velocity data to an unlimited number of properly equipped users anywhere on the planet. It's also unaffected by weather.

— Reported by AFMC Public Affairs

Test validates hypersonic upgrades, sets record

HOLLOMAN AIR FORCE BASE, N.M. — A 192-pound, fully-instrumented Missile Defense Agency payload recently traveled more than three miles in 6.04 seconds, validating Holloman's High-Speed Test Track hypersonic upgrades and setting a world land speed record.

Air Force Materiel Command experts conducted the test in New Mexico when a four-stage, rail-bound rocket sled reached Mach 8.5, or 6,416 miles per hour. The sled broke the standing land speed record of Mach 8.1 for travel on rails, also set here in October 1982. The sled impacted its target with energy equal to a car hitting a wall at 2,020 mph, according to Lt. Col. James "J.J." Jolliffe, 846th Test Squadron commander.

— Reported by AFMC Public Affairs

Mr. Jack Cocchiarella, AFRL/MN powered LOCAAS program manager holds a full-scale model of the autonomously-guided munition. (Photo by Mr. Rex Swenson, AFRL)

LOCAAS hits target in system flight test

EGLIN AIR FORCE BASE, Fla. — The Air Force Research Laboratory Munitions Directorate here recently successfully tested its powered Low Cost Autonomous Attack System equipped with a multi-mode warhead, the first time the system has autonomously located, attacked and fired a warhead at a target in a test.

In this test, LOCAAS was released from an aircraft over the Eglin range. Flying under its own power, LOCAAS used its on-board Global Navigation System/Inertial Navigation System to navigate to two locations prior to searching for the target, a relocatable surface-to-air missile launcher.

LOCAAS acquired and correctly identified the target, tracked it, and detonated the warhead at the appropriate time and location. All flight test objectives were met.

— Reported by AFRL Public Affairs

Any time, any place, right time, right place

Robins supports joint warfighter through Global Positioning System

Mr. Francis Rowe, Robins Air Force Base, Ga., said he knew the management of the Global Positioning System's user equipment here reached beyond the base gates, but a recent deployment to the Middle East gave him a whole new perspective.

Mr. Rowe, senior system engineer for the U.S. Army branch of the GPS system support management office at Robins, was recently sent to Kuwait to address technical difficulties with one of the system's key components.

"We're here to make sure the user equipment is providing quality service throughout all branches of the armed forces," he said. "The Army had problems with their precision lightweight GPS receiver outputting incorrect positions, and I was there to figure out why."

Up-to-date technology

With more than 150,000 GPS receivers installed in aircraft, ships and ground vehicles Defense Department wide, the system provides warfighters with the most modern technology to execute missions with success, said Lt. Col. David West, GPS system support manager.

The GPS is a highly accurate system, using satellites to provide worldwide, continuous, real-time, all-weather precision positioning and velocity information to users operating equipment in a passive mode.

Col. West said his office has managed GPS user equipment, the dominant technology for precision-guided munitions since the Gulf War and Operation Allied Force.

A joint service arena

According to Mr. Jim Barrow, GPS control branch chief, Robins is part of a joint service arena that works with the Joint Program Office at Los Angeles AFB, Calif., the control segment managing satellites at Peterson AFB, Colo., Tobyhanna Army Depot, Penn., and the Naval Depot in San Diego.

Global Positioning System serves a broad spectrum of Air Force, Army, Marine Corps and Navy requirements, as well as those of NATO and friendly foreign countries, he said.

Meeting requirements

"The system meets mission requirements in several areas," he said. "In ships, it's highly reliable for supporting six-month cruises; provides high-dynamic range gravitational force for aircraft; and is hand-held so Army infantry can carry it."

Mr. Barrow and Mr. Rowe are part of the Space and Special Systems Directorate that manages and maintains GPS user equipment, such as the precision lightweight GPS receiver, the miniature airborne GPS receiver and the GPS antenna system.

"This user-equipment receives signals from satellites, processes this data, and provides the user (man, vehicle, vessel, or aircraft) with precise three-dimensional position, velocity, time and navigation information," Mr. Barrow said.

Satellites in orbit and receivers on the ground can pinpoint location within 10 meters and timing within one microsecond, making it the essential basis for all modern navigation, said Col. West.

A natural integration

"In our work, GPS is the key enabling utility for precision navigation and targeting," he said. "We give the warfighter the capability to perform his mission any time, any place. This is the all-weather, timing system which is the key to reducing collateral damage while delivering precision attacks."

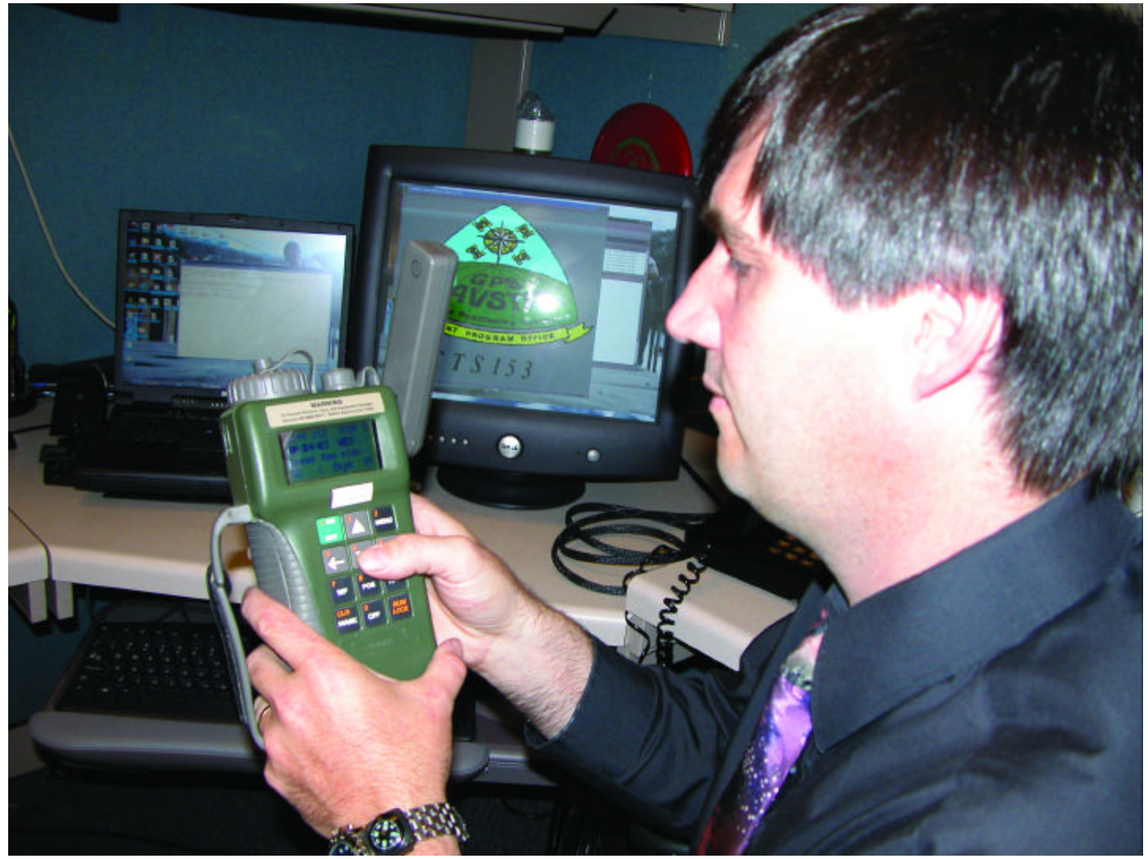
Col. West said he expects GPS will eventually become a natural part of the integral navigation system in place in military aircraft, ships, and ground vehicles.

"We expect this will grow into a utility like turning on a light switch," he said. "When pilots turn on their navigation system, it will come on as part of the war system."

Col. West said his office is fully aware of the responsibility that is placed in their hands, and the media's extensive coverage of the GPS system serves as a source of motivation for his office to continue providing a highly reliable and capable system to the United States.

— Ms. Holly Logan, WR-ALC Public Affairs

Top: Mr. Francis Rowe, Robins AFB, Ga., checks out a Global Positioning System precision lightweight receiver installed with the Blue Force Tracker system on a Humvee in Kuwait, where he recently helped solve a technical problem with the Army's equipment. Middle: A view of the airfield in Kuwait during a mild sandstorm. Visibility was 150-200 yards. Bottom: This is some of the equipment the global positioning office at Robins manages for the Defense Department. (U.S. Air Force photos by Mr. Francis Rowe)



Mr. Francis Rowe, back at his Robins AFB, Ga., office, demonstrates a precision, lightweight, hand-held Global Positioning System unit. He recently returned from Kuwait where he helped solve a technical problem with the Army's PLGR equipment. (Photo by Ms. Sue Sapp)

Prisoner of War recovery aided by Brooks team

Air Force aeromedical evacuation equipment and the Defense Department's patient care tracking system developed at Brooks City-Base, Texas, have contributed to the recovery of many U.S. casualties from Operation Iraqi Freedom, including that conflict's most celebrated Prisoner of War, Private First Class Jessica Lynch.

Private Lynch, the 19-year-old Army supply clerk from Palestine, W. Va., was captured March 23 in the southern Iraqi city of Nasiriyah after her unit, the 507th Ordinance Maintenance Company, was ambushed. She was rescued April 1 from an Iraqi hospital during a U.S. commando raid.

Her subsequent aeromedical evacuation to Landstuhl Regional Medical Center in Germany and later to Walter Reed Army Medical Center in the U.S. was aided by the new Patient Support Pallet developed at Brooks and a patient care tracking system Air Force engineers here helped design, the Transportation Command Regulating and Command & Control Evacuation System, called TRAC2ES.

Increasing demands

"We're excited that the systems we helped develop worked so well. Air Mobility Command is so pleased, they want to order another 39-50 patient support pallet ship sets," said Col. Daniel Berry, aeromedical and medical information systems division chief for the 311th Human Systems Program Office.

Officials at Air Mobility Command, the special program office's major customer for patient support pallets, said they are sold on the reliability and efficiency of the new litter system used to transport aeromedical evacuation patients in Air Force cargo aircraft reconfigured into air ambulances.

In February 2002, the systems program office delivered 25 patient support pallet ship sets to the command, which then used them primarily on C-17 aircraft stationed worldwide. Test results show the mobility and design of the pallets successful in the rapid and safe transport of patients during test flights.

Meanwhile, TRAC2ES is proving successful as a computer-based worldwide patient and casualty movement system. It gives health care providers critically important, real-time health and medical history data on American military personnel wounded or injured during Operation Iraqi Freedom.

Monitoring patients

"Private Lynch's aerovac mission was directed using our TRAC2ES program," said Col. Berry, noting that her medical condition was monitored by medical and command and control elements from the time she was rescued through her eventual evacuation stateside.

Private Lynch suffered from multiple injuries, including a head wound, spinal injury and fractures to her right arm, both legs and her right foot and ankle.

The TRANSCOM regulating and command and control evacuation system was developed after the Operation Desert Storm because the patient tracking system used during the operation was inefficient.

According to the Air Force Surgeon Genera''s Office, 50 percent of Desert Storm patients were initially sent to the wrong destination and 60 percent were "lost" in terms of their whereabouts within the aeromedical evacuation system.

Prior to Operation Iraqi Freedom, the special program office team procured, configured and deployed a new modified system to the Global Patient Movement Requirements Center at Scott Air Force Base, Ill., according to Col. Berry.

He said the system's new hardware increased user capacity by 300 percent and provided support to more than 250 simultaneous users. The team also developed what-if strategies in support of wartime needs.

Direct support

As a consequence of this work, combined with important patient support pallet modifications, the team successfully conducted more than 17,000 patient movements. Of these movements, 1,700 were directly involved in Operation Iraqi Freedom, Col. Berry noted.

Col. Berry's team has received many accolades from their customers. Among them is an April 12 e-mail from Maj. Lisa DeDecker, air expeditionary concept development branch chief and military consultant to the Surgeon General for Flight Nursing at Scott AFB, who said, "Just wanted you all to know that Jessica Lynch is headed home today to Walter Reed on board a C-17 with patient support pallets!

"I can't tell you how excited I am that this all really came together and it is working. They were also used to bring several urgent patients, including a badly burned one, into Kelly a couple of weeks ago! Thanks to all for your huge effort and persistence in getting this rolling."
— Mr. Rudy Purificato, 311th HSW

Left: Members of the 311th Human Systems Program Office at Brooks City-Base, Texas, on litters, teamed with maintenance personnel, in seats, from Altus AFB, Okla., on board a KC-135 during a recent demonstration of the Patient Support Pallet. PSPs, developed at Brooks, have been used to transport 1,700 patients in support of Operation Iraqi Freedom, including Private First Class Jessica Lynch, the former POW rescued from an Iraqi hospital April 1. (Air Force photo)

A B-52 Stratofortress takes off April 7, for the first "real world" mission using a Litening II Pod for laser guided bomb delivery. (Air Force photo by Airman 1st Class Stacia Willis)

Overnight delivery helps B-52 achieve targeting victory in OIF

A cooperative effort between the B-52 system program office and the maintenance directorate at Tinker Air Force Base, Okla., allowed a B-52 Stratofortress fitted with a Litening II targeting pod to be used for the first time in combat during Operation Iraqi Freedom.

The Litening II, a multi-sensor, laser target designating and navigation system, provides realistic images to the B-52's aircrew.

Prime time bombing

"It adds self-lasing capability to the B-52," said Mr. Dean Price, B-52 system program office weapons integration program manager. "Everyone I'm sure has seen the laser guided bomb demonstrations on the news. This eliminates the requirement for either ground or airborne laser support, or someone else to put the laser on the target, and increases the capability for target acquisition.

"If you've seen the news channels, then you've seen video where they actually drop a bomb all the way to the target and it exploded. Tha's the capability that this has," he said.

"The unique part of this is most of our work is done above 30,000 feet. We are a long way up there and the pod works well and gives us good images. It generates geophysical locations so that those ground coordinates can be sent to the crew," said Mr. Price.

The Litening II features a spot tracker and range finder, infrared marker and a laser designator. Mr. Price said the pod operates with "weapons commonly referred to as 'J' series weapons," which will guide themselves to preset coordinates.

Getting rid of the middle man

"This eliminates the middle man," he said. "In some instances, you have a person or a spotter on the ground who sees a target and establishes the coordinates for that target and passes it to the aircraft by radio. Then the aircraft operators or that particular radio navigator has to literally punch in those coordinates on his keyboard.

"What this does is gives him a visual representation of those coordinates, which eliminates most of the possibility for error and the need to have our troops in harm's way painting targets with lasers," he said.

The pod is currently fielded with Air National Guard F-16s and A-10s, U.S. Marine Corps AV-8Bs and U.S. Air Force F-15Es among others, making the B-52 the seventh U.S. military aircraft to integrate the Litening II system.

Making the old new again

However, in order to fit the Litening pod to the 50-year-old frame, some changes needed to be made. The B-52 program engineers and machinists from the maintenance directorate got together to develop an adapter to fit the pod to the pylon on the wing.

Mr. Danny Tornello, maintenance manufacture machining supervisor, said his office, with the help of the commodities, industrial services, engines and aircraft divisions, evaluated drawings and determined what they would need to make the adapters.

The minimal time involved impressed Col. James McGinley, B-52 system program office director.

"From the time we gave Mr. Tornello and his crew the drawings to the time we got the first adapter was three weeks," he said.

According to Mr. Tornello, the process

B-52 *continued on page 9*

Edwards testers prepare B-52 for Operation Iraqi Freedom

An Edwards Air Force Base, Calif., tester was hand-picked by the 8th Air Force commander recently to improve the Air Force's oldest aircraft with a new combat capability designed to integrate a targeting pod on the B-52 airframe.

Maj. Keith Colmer, selected by Lt. Gen. Bruce Carlson for his previous experience as one of the original operational test program pilots for the Litening II targeting pod, deployed to Barksdale AFB, La., to assist with the integration.

According to Maj. Colmer, the tasking was no small order considering this was the first time a targeting pod was installed on a B-52.

A new concept

"The concept was to turn out a combat capability that wasn't there before," said Maj. Colmer. "It included integrating the targeting pod on the aircraft, conducting the test and evaluation and finally training the aircrews and maintainers on the use and care of the pod."

The test was an operational utility evaluation sponsored by the Air Force Reserve Center and conducted by Air Combat Command's 93rd Bomb Squadron, the Air National Guard and Air Force Reserve Test Center in Tucson, Ariz. B-52 operational testers from the 49th Test and Evaluation Squadron participated in the test, providing aircraft instrumentation, data analysis and two weapons systems operators.

According to Mr. Mo Kalhor, B-52 system program office engineer at Tinker AFB, Okla., the testing included six sorties that took less than a month to accomplish, a major feat for the project.

The interesting thing about the test, according to Maj. Colmer, was that the 93rd Bomb Squadron from Barksdale did most of the work on the test, even though they are not normally testers.

"They called for experts to come out and verify their work," he said. "Some of the things we looked at were integrating the pod onto the airframe, working out some software issues and training the crews to use the system."

Tried and true methods

A positive aspect that helped testing was that none of the tactics used were different from those already in use by the B-52 crews, said Maj. Colmer.

"Once they learned how to operate the pod, to track the target and use the laser, they were able to employ the capability to visually identify the target and designate laser-guided weapons," said Maj. Colmer. "We didn't have to change how they flew or maneuvered the aircraft, which was great because when you are trying to conduct a rapid combat test, you try to change as little as possible."

Overall, Maj. Colmer said the test went extremely well; he was impressed with how well the B-52 systems program office, the 93rd Bomb Squadron, 49th Test and Evaluation Squadron, AATC and 8th Air Force all worked together to get the combat capability quickly fielded.

For Mr. Kalhor, the cooperative efforts between the contractors, other government agencies, the program office and Air Force was the major attribute to the phenomenal success of the project.

"This special professional relationship was the reason we could accelerate and complete this program successfully," said Mr. Kalhor.

— 2nd Lt. Tony Wickman, AFFTC Public Affairs

B-52 *continued*

would normally take six to eight weeks, not including an additional 30 days for material acquisition.

"Plus we did work quite a bit of overtime and seven-day weeks, especially on that first one," Mr. Tornello added. "With what was going on abroad, everybody stepped up and was very professional about the whole situation. Our bosses and our chain of command were totally supportive in making it happen — whatever we needed, whatever it takes to get it out."

According to Mr. Price, Tech. Sgt. Rob McCormack, from the B-52 program logistics support division, was so determined to get the part to the warfighter he put the first finished adapter in his car and personally drove it to Barksdale AFB, La., on a Sunday. Maintainers installed the part and the aircraft deployed within a week of the delivery.

Col. McGinley stressed the on-going cooperation between the B-52 program office and the maintenance directorate also played an important role in the adapter development.

Now that is dedication

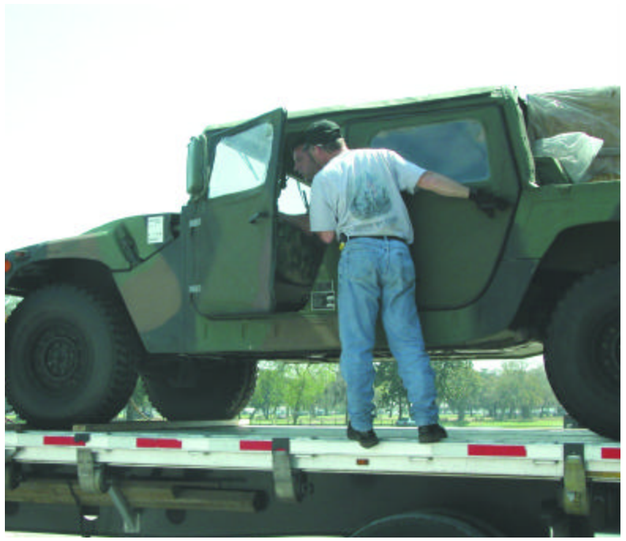
One B-52 progam engineer deserves much of the credit, according to Mr. Price.

"The key player in my mind, at least here in the program office, was a gentleman named Mr. Mo Kalhor," he said. "He's been heavily involved in this from the beginning. He spent a lot of time, on temporary duty assignment, working the bugs out, conducting tests and performing actual hands on, helping the operators out in the field install the pod and then install the necessary hardware. He is not here right now because he's deployed with those aircraft."

For Mr. Price and others involved in the Litening II adapters, satisfaction comes from knowing how the systems helped deployed warfighters.

"Anytime we save a life or defeat an enemy, it gives you a sense of pride like you're there with them," Mr. Price said. "In fact, sometimes I sit down and watch the news and get goose bumps knowing that our guys, the guys that we support are actually over there doing the fighting for us.

—Ms. Amy Welch, OC-ALC Public Affairs.



New readiness unit flexes its muscles

The 96 Logistics Readiness Squadron's Distribution Flight at Eglin Air Force Base, Fla., recently performed the largest single cargo deployment by truck to a water port for overseas deployment ever made by an Air Force shipping activity.

The men and women of the newly formed cargo movement element, combined with elements of the 728th Air Control Squadron, worked night and day from March 20-23 to accomplish what many felt was the near impossible.

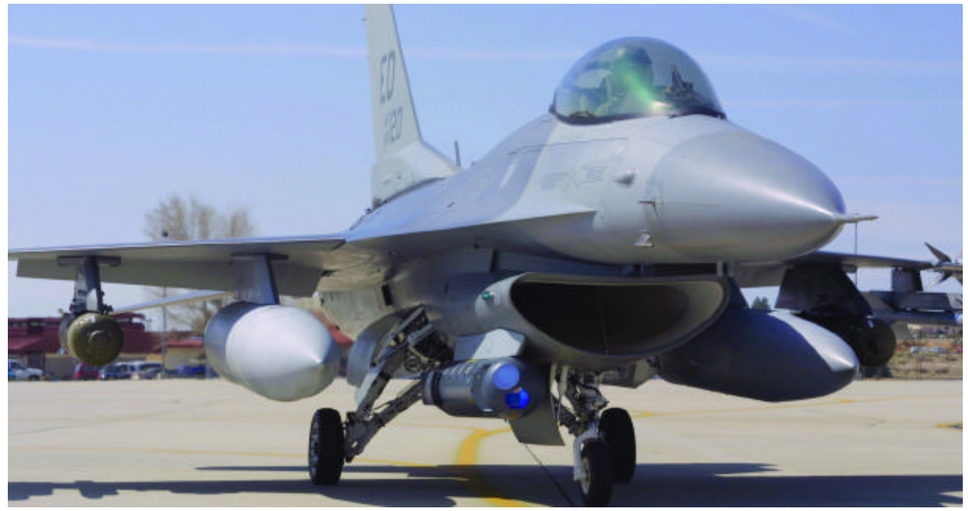
Working on short notice from U.S. Transportation Command and Headquarters Air Force Materiel Command, the unit received a verbal "heads up" just two days before the word to go was received, according to Ms. Kathy Cummings and Ms. Georgina Edwards, shipment planners. Working through the night, they were assisted by Mr. Fred Moore, Mr. Wayne Yoag and Mr. Michael Thompson, who said they conquered a mountain of paperwork and data to enable the unit to begin moving the trucks on March 20.

When the trucks started rolling into Eglin, the men and women of shipping, receiving, packaging and preservation joined together to form two,12 hour shifts, working non-stop until the final truck departed. Load plans were developed by the 728th Air Control Squadron and the shipment planners for 121 truckloads of equipment. Trucks were ordered, bills of lading prepared, and thousands of documents to satisfy shipping and customs requirements were prepared, faxed and shipped with the cargo.

When the job was completed, the figures were staggering — 2,658,894 pounds of cargo was loaded onto 121 trucks in less than four days. All the cargo reached the seaport well within the operational time window to load onto commercial ships, completing one exhausting but rewarding deployment, according to officials.

— Mr. James McCardle, 96 LRS

WORKING LIKE DOGS — The 728th Air Control Squadron and the 96th Logistics Readiness Squadron, Eglin AFB, Fla., load equipment on flatbed trucks for shipment while a truck driver's dog stands watch. (Air Force photos)



Capt. Scott Thompson, with the 416th Flight Test Squadron, pilots an F-16 modified with the Litening II targeting pod and software upgrade. The Litening II pod and software package were test accelerated to provide Block 50 F-16s precision targeting capabilities. (Air Force photo)

AF testers overcome time, weather meeting warfighter operational needs

It isn't every day someone is asked to turn around six weeks of work in three -and- a- half days, but that is exactly what the Air Combat Command asked of the 416th Flight Test Squadron at Edwards Air Force Base, Calif.

In an effort to integrate a new targeting pod on Block 50 F-16s, squadron members condensed six weeks of test and evaluation into three-and-a half days, overcoming manmade and environmental challenges. The F-16 program office at Wright-Patterson AFB, Ohio, tasked the squadron to verify a software upgrade and the Litening II targeting pod were safe and effective for Block 50 F-16s.

It's all about software

"This is the central operating system for the airplane," said Maj. Todd Ericson, the targeting pod test pilot. The accelerated testing resulted from ACC's need to get the product operationally tested, evaluated and ready for the warfighter.

According to Mr. Tony Kaiser, 416th FLTS software program manager, Edwards' goal was to confirm that the software and pod were ready for operational testing. "We laid out a plan to prove the pod was safe and stable for use on the aircraft, to include ground testing, electromagnetic interference evaluations and flight testing," he said.

Mother Nature threatens test

Once the 32-member team of engineers, pilots, maintainers and civilian contractors were approved to test, they wasted no time planning how to accomplish the mission. But not everything fell into place; weather and transportation problems created a number of obstacles.

The aircraft sent to retrieve the pod for testing from Nellis AFB, Nev., broke down on the flight line, forcing the Edwards team to drive to Nellis to pick it up. In addition, bad weather forced a day's delay leaving Edwards. Then the storm drifted to Nellis, making things difficult at both locations. "We worked through the night to get the pod in place for testing," Mr. Kaiser said.

"We borrowed a truck from the F/A-22 combined test force and a case from another unit to carry the pod in," he added. "We even had to go get the pod and have people standing by at Edwards to start testing when it came in."

When the pod arrived around 1 a.m. Feb. 14, testers worked through the night and all that day to check paperwork, conduct electromagnetic interference and functional checks and accomplish two flight-test missions.

Even though testing was greatly accelerated, neither safety nor quality was sacrificed, according to Mr. Bill Gaddis, 416th FLTS systems engineer.

"While there was a risk, it was paramount that the planning incorporated everything we would normally do in a six-week test in the compressed timeline," he said. "We double-checked everything to make sure all was safe before we proceeded."

For example, the Edwards team checked with ACC, the program office and the Seek Eagle program at Eglin AFB, Fla., to verify that weapons loaded on the aircraft were safe to load and fly in the proposed configuration so testing could proceed, said Mr. Gaddis.

A team effort

With completion of the flight missions, the 416th testers said they accomplished their mission and released a safe software upgrade and targeting pod capable of accurately dropping laser-guided bombs.

"This was a team effort, not only by the 416th, but also a number of base agencies at Edwards and at Nellis, with the ultimate goal of providing an essential combat capability as soon as possible," said Maj. Ericson.

— 2nd Lt. Tony Wickman, AFFTC Public Affairs

Team Kirtland meets Bulgaria face-to-face

Supporting air refueling operations for aircraft that have been striking targets in Iraq as part of Operation Iraqi Freedom has found Kirtland Air Force Base, N.M., active-duty and Air National Guard members working together at Camp Sarafovo, Bulgaria.

Security forces members from the New Mexico Air National Guard's 150th Fighter Wing and support people from the 377th Mission Support Group, Kirtland, arrived at the camp during the preparation phase of Operation Iraqi Freedom, supporting operations with the KC-10 Extender aircraft and helping form the 409th Expeditionary Group.

With Maj. Richard Almeter in command, members of the 150th Security Forces Squadron are not only working hand-in-hand with active-duty members, but also with Bulgarian National Police.

A varied mission

"I's been a positive experience," said Master Sgt. Roy Johnson, 409th Security Forces Squadron deployed from the 150th Fighter Wing. "We're learning each other's law enforcement and security techniques. Soon, we're going to start joint patrols with the Bulgarians."

Sgt. Johnson said the job the security forces members do there isn't an easy one. Twenty-four hours a day, seven-days-a-week, they provide security and law enforcement functions for more than 400 people at the camp, in addition to the aircraft and resources on the flightline about two kilometers away.

Additionally, security forces members have taken on many extra duties including conducting honor guard functions, helping with school tours of the flightline and camp, working with local media to build a positive relationship, providing extra security for multiple distinguished visitors and developing emergency response checklists for themselves and the Bulgarian Police, according to Maj. Almeter.

Making new friends

"After a long history of Soviet influence in Bulgaria, learning each other's systems is very different for both of us," said Maj. Almeter. "The Bulgarian military and police have welcomed the American security forces, and both sides are working hard to build rapport."

And the efforts of both sides are already paying off, according to Sgt. Johnson. "A lot of our guys are learning some Bulgarian, and in turn, they're teaching English to the Bulgarians. It gives everybody a chance to practice and also an opportunity to socialize during downtime.

"A lot of our guys are civilian cops at home," said Sgt. Johnson, who is also an Albuquerque policeman. "A lot of the questions the Bulgarian Police ask are about police work at home. Cops are the same everywhere in the world, and that common bond has been huge here."

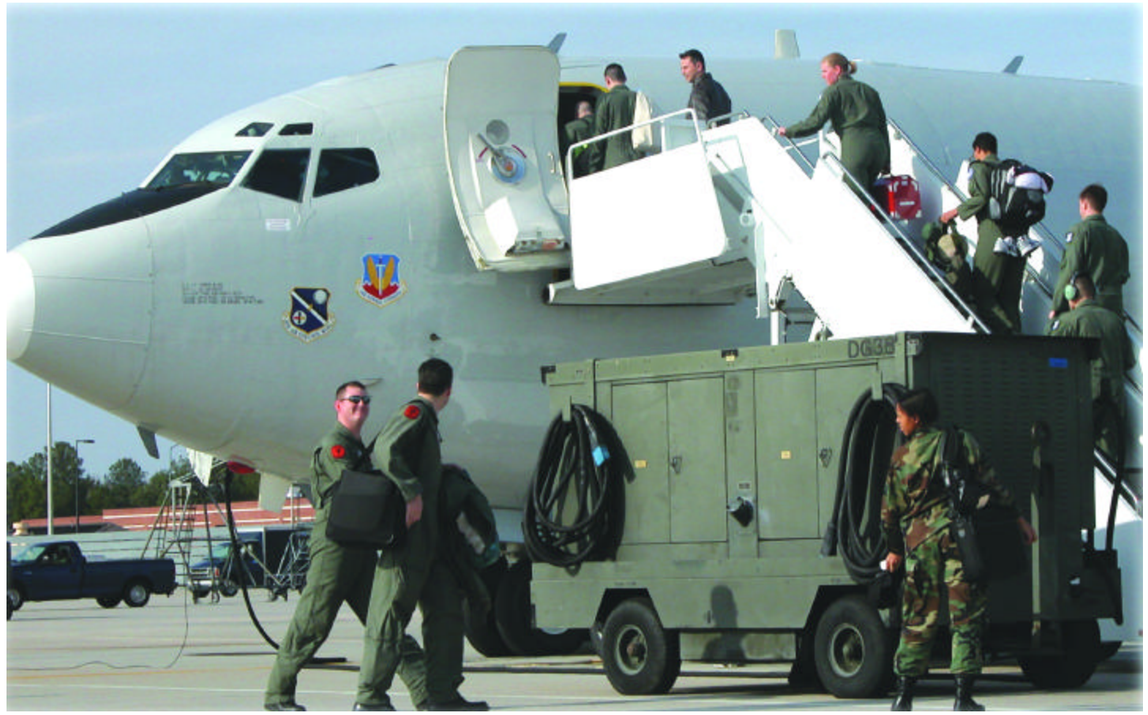
Bulgarian Military Police officer Jeko Jekov and Staff Sgt. Olga Valery of the 409th Security Forces Squadron from Kirtland AFB, N.M., patrol the beach area at Camp Sarafovo, Bulgaria. American security forces members work in conjunction with Bulgarian military police to maintain security on Camp Sarafovo. (Photo by Master Sgt. Dave Ahlschwede)

Fighting terror is a full-time job

The 150th Security Forces Squadron has been activated since September 2001, according to Sgt. Johnson. While they are excited about getting home and spending time with their families, his teammates keep their morale high and stay focused on the job they have to do.

"There are certain times when the people get tired and worn down that they feel the stress of wanting to get home," he said. "But they all feel a great deal of pride in being involved in the war efforts of Operation Enduring Freedom and Operation Iraqi Freedom. We all know we have jobs to do, and we're proud to serve our country in whatever we're called to do."

— Staff Sgt. Jason Smith, 409th Air Expeditionary Group Public Affairs



Members of the 116th Air Control Wing at Robins AFB, Ga., board an E-8C JSTARS aircraft prior to their deployment to an undisclosed location. (U.S. Air Force photo by Ms. Sue Sapp)

Joint STARS takes off for second deployment

Two E-8C Joint Surveillance Target Attack Radar System aircraft and several dozen members of the 116th Air Control Wing at Robins Air Force Base, Ga., answered the call of duty March 5, as they headed to an undisclosed forward operating location to support Central Command's theatre operations.

The 116th ACW is a blended unit, and is also the first "Total Force" unit in the U.S. Air Force, combining Air National Guard and active duty members in one wing.

According to Lt. Col. John Labuda, 116th ACW spokesperson, this is the unit's second deployment this year.

Those headed out say they are proud to serve and ready for action. Lt. Col. Willie Nunn, 116th Airborne Command and Control Squadron commander, said he is glad to be able to support this tasking and lead this detachment.

"Our people train for this every day, and they are ready to do the job," he said.

Airman 1st Class Audrey Hughes, air operations technician, said she was highly excited about this deployment, which was her first. "Honestly, I am excited to be able to fight for my country and work for the president and work on the war on terrorism."

The youngest on her crew, the California native has been in the Air Force for two years and says her parents couldn't be more proud that their daughter is going to defend her country. "They are a little scared, but that's just natural for all parents," she said.

Maj. Gen. David Poythress, Adjutant General of Georgia Air National Guard, came out to wish the deploying members well. "The crews are well trained, morale is high and they are ready to go," he said.

He continued to say when the unit stood up he didn't envision they would go out so soon, but the aircraft and personnel are ready. "These are very unique aircraft, the only ones of their kind in the United States inventory, and when they go things are pretty serious. We are looking forward to the role they are going to play."

The 116th ACW is the only unit equipped with the E-8C aircraft, more commonly known as Joint STARS. The Joint STARS mission provides air and land component commanders with a near real time ground battlefield picture.

The 116th Air Control Wing is the first "Total Force" unit in the U.S. Air Force, combining Air National Guard and active duty members in one wing.

— Ms. Lanorris Askew, WR-ALC Public Affairs

Aircraft battle damage repair instructor Tech. Sgt. Dennis Perine, with the 653rd Combat Logistics Support Squadron at Robins AFB, Ga., assesses the simulated damage to an F-15 Eagle from a piercing projectile that is used for training. (U.S. Air Force photo by Ms. Sue Sapp)

Damage docs patch, repair battle aircraft

With aircraft battered and torn from the fight, aircrews depend on the "damage doctors" to get them and their aircraft back into the fray.

During the conflict in Iraq, members of the 653rd Combat Logistics Support Squadron at Robins Air Force Base, Ga., have been the "docs" carefully patching and repairing aircraft, making them airworthy to fly and fight again.

Several unit workers are deployed for Operation Iraqi Freedom, doing their unique job, said Senior Master Sgt. Thomas Cain, training flight maintenance superintendent.

"The 653rd CLSS provides highly trained, worldwide-deployable teams to repair battle-damaged aircraft and help with supply and surface-freight management operations," he said.

Preparing for real-world situations

Regular exercises in chemical warfare suits help prepare the unit for real-world wartime situations, said Sgt. Cain.

"We train to do our job in a wartime environment," he said. "If you think about it, we have a gun in one hand and a wrench in the other. We train intensely for this job."

Teams of qualified people, including crew chiefs, structural technicians, fuel technicians, electrical and environmental technicians and hydraulics technicians, are steadily making sure aircraft are ready for the mission.

"While everybody can perform the other's jobs somewhat, you still need that specialization for the different areas," he said. "In that aspect, the teams are pretty much all-encompassing."

Working in theater from what is called a "war wagon," Sgt. Cain said 653rd CLSS workers show their skills, sometimes working without power.

"The 653rd must always be prepared," he said.

Sgt. Cain said the unit's highly trained technicians are prepared for immediate worldwide deployment to support the F-15 Eagle, C-130 Hercules, C-141 Starlifter, C-17 Globemaster III, C-5 Galaxy, HH-53 Pave Low and HH-60 Pave Hawk. They perform aircraft battle damage repair and crash recovery operations.

Supply and transportation teams are equally prepared to assist with traffic management, rapid area distribution support and more. Supply teams from the 653rd CLSS, deployed as part of a rapid distribution support team to issue new chemical warfare suits to troops, already deployed to the area of operations.

All branches of the military now use these new suits, said Tech. Sgt. Michael Walker. He said the suits can be worn longer, which lets troops stay in the field longer.

"One of the taskings of the 653rd...is to go in and assist with normal base supply during a bare-base buildup," said Sgt. Walker. He said because of the influx of people in theater, the new suits had to get to the troops quickly.

Other improvements to the suits include a more customized fit, lighter weight and cooler material, and a longer life span, Sgt. Walker said. He also said the suit can be washed and reused many times.

In war and peace

Besides battle-damage repair and supply issues, the unit also supports peacetime depot-level modifications, repair and technical assistance to all major commands, other U.S. government agencies and allied nations.

"The level of capability that we have and the repairs we are authorized to make, normal field units are not authorized to do," said Tech Sgt. Dennis Perine, aircraft battle damage repair instructor. "We are able to get in and do the battle damage and complex repairs. Our training is above and beyond what you would normally have in a flying unit."

Although they make both structural and systems repairs, Sgt. Perine said structural repairs usually dominate their time.

"The hardest repairs are the newer aircraft that have more composite-type (construction) or more up-to-date technology," he said.

Though some fixes may be more time consuming than others, none ever defeat the unit members' capabilities, he said.

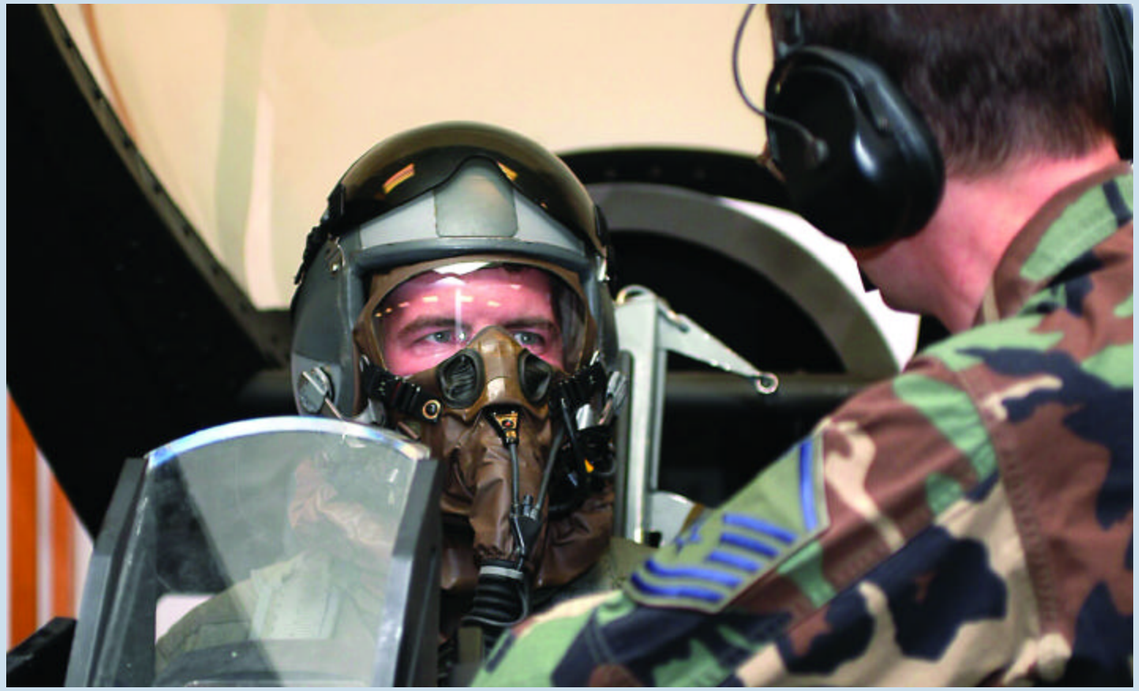
— Ms. Lanorris Askew, WR-ALC Public Affairs

Across the command

A WET WELCOME HOME — One of five E-3 Sentry airborne warning and control system aircraft receives a traditional hosing down upon returning to Tinker AFB, Okla., April 28. The aircraft carried approximately 180 members from the 552nd Air Control Wing — the wing's Canadian component — and 513th Air Control Group reservists. The units were deployed supporting operations Enduring Freedom and Iraqi Freedom. (U.S. Air Force photo by Airman K.L. Kimbrell)

PACKING TO GO — Staff Sgt. Phillip Roosen (left) and Senior Airman Jason Elsner move a radar unit after it was removed from the tower at Eglin AFB, Fla. The men are assigned to the 728th Air Control Squadron at Eglin, which received a deployment order to report to Southwest Asia in early March. The 728th ACS is one of the Air Force's few self-sustaining forward-deployed ground radar units. Right: Airman Elsner gathers the rope that was used to move the radar unit. (Photos by Staff Sgt. Jerron Barnett)

C-130 ACCELERATION — Mr. Chris Carrington and Mr. Eddie Wright, sheet metal mechanics, install rivets into a C-130 panel. They are part of a team that helped accelerate the production of four C-130s at Robins AFB, Ga. (U.S. Air Force photo by Ms. Sue Sapp)



I'M ALL EYES — Master Sgt. Gary Easterwood (right) talks with a pilot about the proper procedures for using chemical warfare equipment in the F-16 Fighting Falcon at Hill AFB, Utah. Sgt. Easterwood is an aircrew life support assistant superintendent. The equipment pilots wear is called the aircrew eye and respiratory protection system. Pilots must have specialized chemical warfare training to prepare for threats faced while flying. (Photo by Senior Airman Nakita Carlisle)

An F100 engine in final assembly gets the attention of jet engine mechanics at Tinker AFB, Okla. Clockwise from left; Staff Sgt. Teddy Greene, Tech. Sgt. Matthew Mellen, Staff Sgt. Aundre Shaw and Staff Sgt. Steve Shelton. (Photo by Ms. Margo Wright, OC-ALC Public Affairs)

Engine readiness: Highest since Gulf War

Lately, there's a golden gleam in the eyes of many in the Propulsion Directorate at the Oklahoma City Air Logistics Center at Tinker Air Force Base, Okla.

And no wonder, since for the first time since the Gulf War, more F100-PW-100 net serviceable engines are on hand than are required to meet the Air Force's needs in the event of war.

Maj. Gen. Charles Johnson, installation commander, praised the change from red to yellow war readiness engine status during his recent state of the OC-ALC address, calling it "something that we've been chasing for a decade."

A success story

"It's really a significant achievement, a great success story from the perspective of all the participants who contributed to meeting that goal," said Col. Robert Garcia, F100 fighter propulsion division chief. On the depot side, those participants include the propulsion and maintenance directorates, as well as contractors and subcontractors. But they didn't do it alone, the colonel said.

Credit for the engine's yellow status also belongs to "the men and women at all of the field unit engine shops who combine the engine modules we build here at the depot into full-up engines," he continued.

"They are the ones who have built our war readiness engine spares to the levels we see today and who maintain these engines through their daily efforts. We know they have done an incredible job at keeping aircraft status high," he added.

According to Mr. Bruce Eberhard, F100 engine manager in the fighter propulsion division's customer support section, a second engine in the Pratt & Whitney series, the F100-229, has also gone yellow.

Determining an engine line's status is all a matter of numbers. Mr. Eberhard said the war readiness engine status is a number negotiated with the major commands which relies on the engines and which reflects the actual number of serviceable engines.

The F100's readiness status went to yellow Feb. 20 when the number of serviceable engines at bases around the globe reached 115, surpassing the negotiated total of 104.

The yellow status, he explained, is especially significant given the F100's age of 30 years, which makes it challenging to sustain and maintain.

It just keeps going

The engine's cost-effective modular design gives it, in theory, a limitless lifespan, Mr. Eberhard explained, "because you don't throw away the whole engine. You keep on replacing cycle-expired parts."

Theory aside, the reality is that the Air Force is charting unknown skies with the aging F100 engine.

"It was only intended to operate for two 4,000-cycle intervals," Col. Garcia said, "and we're already entering a third interval, possibly going out to a fourth or fifth interval.

"That's a significant issue. This is the oldest configuration engine in those aircraft that are still flying and it's expected to remain in the inventory until 2013."

Modules are pulled and sent for maintenance every 4,000 cycles, said Mr Eberhard, explaining that cycles generally accrue at the rate of 2.5 per flying hour.

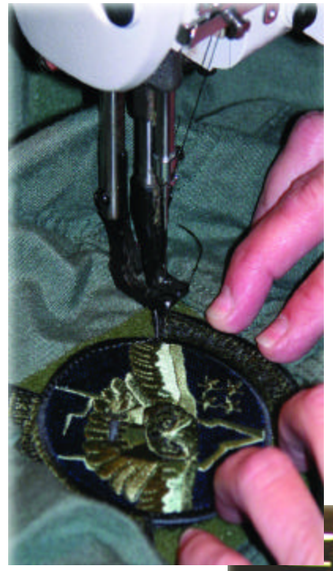
"If you do a lot of training, hard training, air-to-air combat, you're going to accumulate a lot of cycles because you're going full throttle and pulling back to partial and going again. A lot of bases, depending on their mission, will accumulate more cycles than some other base that has a less stringent training mission."

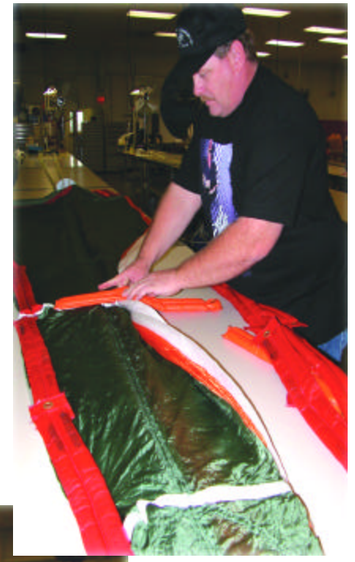
Pride among the workers whose efforts put the F100 into the yellow is a given, said Mr. Toby Gonzales, aircraft engine supervisor. But in large part, the reactions have gone unspoken in the shops. "They're doing what they're supposed to be doing," he said.

— Ms. Jeanne Grimes, OC-ALC Public Affairs

Seams ew imple

Fabric workers from the Life Support Fabric Shop at Robins Air Force Base, Ga., have been working overtime since Operation Iraqi Freedom began.





Top photo: Ms. Alice Bembry sews a patch on a military member's uniform. Bottom photo: Ms. Bembry inspects a C-5 heat blanket. (All photos by Ms. Sue Sapp, WR-ALC Public Affairs)

Top photo: Mr. Ronald Kelly packs an F-15 pilot recovery chute, a process that takes 12 hours to complete. Bottom photo: Ms. Diane Tidwell checks the pressure in a life preserver to go on a KC-135.

Fabric workers at Robins Air Force Base, Ga., maintain and support fabric articles, such as survival rafts and kits, sew parachute retrieval straps, patches and name tags for military members. ***Center photo: Ms. Cora Ridley, fabric worker supervisor, sorts through uniforms awaiting patches.***

The Edwards AFB, Calif., Global Vigilance Combined Test Force is training the initial ACC Global Hawk pilots.

Edwards trains cadre of ACC Global Hawk pilots

EDWARDS AIR FORCE BASE, Calif. — While Global Hawk and its team of experts are supporting the War on Terrorism, Edwards' testers are transforming Air Combat Command airmen into Global Hawk pilots.

The Edwards-based Global Vigilance Combined Test Force, composed of many units including the 452nd Flight Test Squadron and 31st Test and Evaluation Squadron, has been providing training for the past few months with the goal of having all 17 ACC trainees qualified by midsummer.

The developmental Global Hawk aircraft and ground systems are currently being controlled by testers from the Air Force Materiel Command's test and evaluation community, and is currently in the engineering, manufacturing and developmental phase of defense acquisition. Flying at extremely high altitudes, Global Hawk can survey large geographic areas offering military decision-makers the most current information about enemy resources and personnel.

The Edwards test force continues to work closely with the Reconnaissance System Program Office at the Aeronautical Systems Center, Wright-Patterson AFB, Ohio. The program office is responsible for moving Global Hawk toward low-rate initial production. The first operational Global Hawk is slated for delivery to the Air Force in fall 2003.

— Reported by AFFTC Public Affairs

Registration opens for 2003 USAF Marathon

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Registrations are now being accepted for this year's U.S. Air Force Marathon, scheduled for Sept. 20.

Runner categories have changed slightly from past years, according to marathon officials. A 5K fun run (3.1 miles) and a 1/2 marathon (13.1 miles) have been added.

There will no longer be a marathon team category, officials said. The marathon, four-person relay team and wheelchair categories remain unchanged.

The Air Force Marathon, traditionally held the third Saturday of September, is open to all levels of marathoners, civilians and military, from all around the world. More than 3,200 runners, from nearly every state and six countries, participated in the 2002 Air Force Marathon.

Reduced fees for early registration are available until June 30. Registration deadline is Sept. 4.

To register, or for more information, visit the marathon Web site at http://afmarathon.wpafb.af.mil/, or call the Marathon office at (937) 257-4350 or 1-800-467-1823.

— Reported by ASC Public Affairs

AFIT Stands Up Center for Systems Engineering

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — At the direction of the Secretary of the Air Force James Roche, the Air Force Institute of Technology has established a new Center for Systems Engineering.

The center will help focus efforts to revitalize Systems Engineering within the Air Force and on the importance of applying disciplined System Engineering throughout a weapon system's entire life cycle. In addition, it will improve collaboration with industry, academia, professional societies and other services.

— Reported by AFIT Public Affairs

AFRL agreement promotes technology transference

KIRTLAND AIR FORCE BASE, N.M. — Creating new opportunities for technology transfer is the primary purpose of a cooperative research and development agreement recently signed between the Air Force here and the New Mexico Institute of Mining and Technology in Socorro, N.M.

The Institute's agreement with the Air Force Research Laboratory's Directed Energy Directorate builds upon an educational partnership agreement signed by the two organizations last year. While that initial agreement stressed classroom education in optics, the new agreement expands the capabilities of existing optical laboratories. People from both organizations can use these laboratories to transfer optics research and development skills and knowledge to graduate and undergraduate students enrolled in programs such as engineering and science.

By combining expertise from both organizations, officials believe the results will be world-class capabilities in fabrication, coatings, metrology for meter-class and larger optics, and optical coating technologies for temperature-sensitive lightweight optical components.

— Reported by AFRL Public Affairs

AF launches campaign to thank parents of airmen

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — Secretary of the Air Force James Roche and Air Force Chief of Staff Gen. John Jumper launched a service-wide campaign May 5 to thank the parents of America's airmen for their support of their children's service.

The Air Force Parent Pin program encourages airmen to register on a secure Air Force Web site, www.yourguardian-soffreedom.com, where they can provide the names and addresses of up to two parents, or parental figures.

Shortly thereafter, the airmen's parents receive personalized letters from Secretary Roche and General Jumper containing high-quality lapel pins displaying the letter "P" cradled in the Air Force symbol.

All airmen — active, Guard and Reserve — are encouraged by their chain of command to register on the Web site and have pins sent to their parents.

— Reported by AFMC Public Affairs

CV-22 reaches high point in history

The CV-22 Osprey test program recently reached a high point in its flight test history when Osprey 7 successfully completed a terrain-following radar exercise during the multimode radar test plan segment at Edwards Air Force Base, Calif.

The Osprey is expected to return to normal flight testing in June, and is undergoing hydraulic and electrical system modifications and directed infrared countermeasures system installation testing on its avionics, multimode radar and suite of integrated radio frequency countermeasures.

The first in history

The terrain-following exercise test was a first in its flight test history. "We have to qualify this aircraft in all types of terrains," said Maj. Gregory Weber, CV-22 government flight test director. "We'll also fly it in its three different flight modes of helicopter, airplane and conversion mode, which is anything between the helicopter and airplane mode."

During the helicopter mode, the vehicle's wings are in a vertical position, which allows the CV-22 to hover and maneuver like a helicopter. During the airplane mode, the wing's nacelles are forward like a typical airplane.

Computer guided

When an aircraft does terrain following, the pilot programs a desired height above the ground into the computer, and the computer will guide the pilot to keep the aircraft above the ground at that specific height.

"It's kind of like a cruise control that the pilot has to manually work," said Maj. Weber. "The way it works is the computer has the desired above-ground level to fly at. And when something like a mountain comes up, it will tell the pilot to fly higher to stay at the desired level. It also does the same if the plane flies above the desired level."

As part of testing for Osprey, electronic warfare capabilities and avionics testing are done to ensure the Osprey is fully qualified for real-world missions.

"During the electronic warfare tests, they test the (suite of integrated radio frequency countermeasures)," said Maj. Weber. "For the avionics testing, they test the multimission advanced tactical terminal and the multimode radar functions of the vehicle.

Operational testing

The Osprey is scheduled to be fully operational for Air Force Special Operations Command in 2010.

"We are scheduled to be finished with testing in April of 2006," said Maj. Weber. "After we're done, it goes to the Air Force Operational Test and Evaluation Center at Kirtland Air Force Base, N.M., for operational tests."

Currently, the Osprey is slated for other tests in April 2005.

"It's supposed to go through some 'envelope-expansion' testing," said Maj. Weber. "It's basically a wartime environment test of its capabilities."

Capt. Gregg Leisman, a CV-22 flight test engineer, says the CV-22 testing is going as planned.

It's exceeding expectations

According to Lt. Col. J. D. Edwards, CV-22 operational test director, the testing is meeting and exceeding expectations.

"I think we've made some big technical strides in testing this aircraft," said Col. Edwards. "The best reason for that is that we've taken the time to find what problems there are on the aircraft and are fixing them."

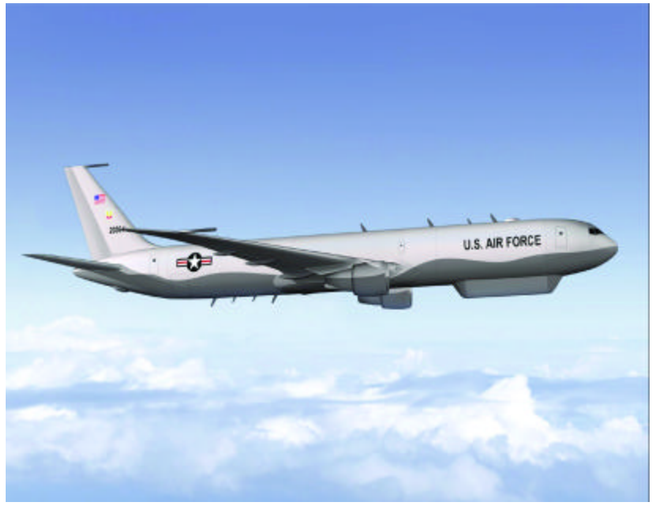
— Airman 1st Class Matthew Dillier, AFFTC Public Affairs

E-3B Sentry Airborne Warning and Control System.

The AFMC RC-135 Rivet Joint Testbed.

E-8C Joint Surveillance Target Attack Radar System.

E-4B National Airborne Operations Center.
(Air Force photos)



E-10A Multisensor Command and Control Aircraft.
(Air Force artist's rendition)

Air Force designates multisensor command and control aircraft

The Air Force recently designated its new multisensor command and control aircraft the E-10A.

The "E" designation stands for electrical systems. While the "E" is specific to the mission of the aircraft, 10 was used simply because it is next in the inventory sequence. The "A" stands for the first variation of the aircraft.

The Electronic Systems Center at Hanscom Air Force Base, Mass., is managing the acquisition and development of the E-10A. Hanscom is also the birthplace of three other Air Force aircraft that share the E designation — the E-3B Sentry Airborne Warning and Control System aircraft, the E-8C Joint Surveillance Target Attack Radar System and the E-4B, which serves as the National Airborne Operations Center for the president and secretary of defense.

"There was talk about creating an 'M' prefix for multisensor," said Col. Joseph Smyth, multisensor command and control aircraft system program director, "but it was decided to go with the 'E' designation instead."

The Air Force Program Integration Division at the Pentagon recently approved the designation.

The E-10 multisensor command and control aircraft will provide ground — and some airborne-moving target indication, as well as key battle management command and control. It is expected to be a central element in the Air Force's command and control constellation.

The C2 constellation is a concept that envisions a fully connected array of land-, platform- and space-based sensors that use common standards and communication protocols to relay information automatically in machine-to-machine interfaces.

— 1st Lt. Andre Kok, ESC Public Affairs

Mr. Randy Harris, an inspector and mechanic at Tinker AFB, Okla., gets a magnified view of an engine turbine area with a new borescope. (Photo by Ms. Margo Wright, OC-ALC)

Advanced scopes give mechanics an edge

New digital borescopes are allowing engine verification unit mechanics at Tinker Air Force Base, Okla., to more efficiently and accurately perform internal aircraft engine inspections, saving time, money, and getting aircraft back in the warfighter's hands quicker.

The fiber-optic borescopes detect, measure and retrieve damaging foreign object debris from inside aircraft engines. This allows maintainers to "prevent potential crashes and return engines for rework as well as provide a better product" to the warfighter, said Col. James Diehl, engine production division chief.

A thorough inspection

He said Tinker officials purchased seven Olympus IPLEX Industrial Videoscope Systems along with several Everest components so Oklahoma City Air Logistics Center workers in the engine final preparation facility can more thoroughly examine "every nook and cranny" inside each engine that comes through the depot.

"Obviously, the quality of any inspection is based on the quality of the inspection equipment," said Col. Diehl. "These will make sure highly reliable engines are made available and directly contribute to flight safety."

The borescopes provide such a thorough inspection capability, mechanics said it's like a night and day difference in the old inspection methods.

"Now we have defect identification, which gives us better quality inspections," said Ms. Marilee McKnight, General Electric Final Preparation and Categorization Sub-Unit supervisor in the maintenance directorate. "Instead of taking three hours to determine the problem, we can immediately make the call and go about fixing it, which increases our productivity exponentially."

Mechanics in her division agree. "The color definition on this new one makes a huge difference," said Mr. Randolph Harris, an engine verification unit inspector and mechanic. "This one will do everything the old one did, but it will also go a thousand miles further."

Mr. Harris said the new equipment functions much like a digital camera, able to zoom and take still and moving pictures. The operator can add text, audio commentary, adjust color and picture brightness and take digital measurements, said Col. Diehl.

Improving safety

Mr. Harris said he inspects around 90 engine blades daily to make sure the cooling holes on the end are not clogged. Each one is a little more than one inch long. On the old equipment, he said it was hard to determine if the holes were actually clogged or if they simply looked smudged on the monitor. "Now, I can say, this blade is safe to put on a motor. That's a judgment call on the old equipment whereas now I'm much more confident," said Mr. Harris.

Col. Diehl said the technicians are excited about the high quality detection they can do. "They can do their jobs better and, more importantly, do their jobs faster," he said.

Before purchasing the new borescopes, the equipment had to be researched. For that, Col. Diehl gives credit to 1st Lt. Wes Adams, logistics deputy chief.

Lt. Adams, who led a research team for six months, said the new scopes are based on endoscopic technology. In fact, the parent company for Everest is Welch Allyn, the medical diagnostic company.

"You can almost compare borescopes, in terms of capabilities, to that of a personal computer," Lt. Adams said. "In the last several years, the technology has just grown by leaps and bounds. With the machines we have now, we're capable of doing things that were unheard of at the time of our previous borescope purchase."

Helping from a distance

Not only do the new borescopes benefit the maintainers, but Lt. Adams said they can also benefit a field mechanic due to the equipment's digital capabilities.

"I could theoretically have a Navy engine with a crack on it somewhere in the middle of the Persian Gulf," he said. "If they have the right software, they can use the new borescope, take a picture and e-mail a digital image to an engineer at Tinker. We can tell them from here if it needs to be fixed without sending an engineer out there."

The benefit to the warfighter is immeasurable, said Lt. Adams. "These borescopes allow us to detect damage that may otherwise go unnoticed by the naked eye," he said. "We provide quality inspections, prevention of defects and timeliness in that we are trying to accomplish the same safety inspections on a more stringent guideline. We're providing the warfighter an engine faster with newer technology than we could have under previous means."

— Ms. Amy Welch, OC-ALC Public Affairs

Edwards, FBI train crime scene units across U.S.

The 95th Air Base Wing's explosive ordinance disposal team recently welcomed the FBI to Edwards Air Force Base, Calif., to teach law enforcement agencies from across the United States how to manage a crime scene after a large vehicle explosion.

The Edwards team and the FBI taught the course together with in-class sessions and hands-on training to cover the different aspects of containing and collecting evidence from an actual large vehicle bomb detonation.

It takes a team

Edwards was chosen to support the course because of the size of the firing range, according to Special Agent and bomb technician Kevin Miles of the Los Angeles FBI office. Since the team is in charge of clearing the range of any unexploded munitions, they played an intricate part as well. "There are very few locations in this country where we can detonate a 2,000 pound bomb for training purposes," he said. "Because the explosive ordinance disposal team is in charge of the range, their main purpose is to be the range safety officers. They also teach once they are out on the range."

According to Staff Sgt. David Larriva, noncommissioned officer in charge of explosive ordinance disposal team resources, this annual 40-hour course is used to teach crime scene contamination control and how to gather evidence.

A dual purpose

"There are two aspects of the course — the first is how to process a crime scene after a bomb detonation and then students are taught what they should be looking for," Sgt. Larriva said. "The students then come out to a crime scene — which we have created and they haven't seen. As soon as they get out there, they have to start processing the scene."

Sgt. Larriva said this class was unique because civilian organizations and the military can learn how each other handle the different situations. The FBI starts the course focusing on the most important aspect — contamination control.

"We teach in a two-day classroom setting how to come in with clean equipment making sure they don't contaminate a crime scene," said Sgt. Larriva. "We really hammer them on keeping it clean."

The crime scene

Since the students must have total understanding of what a crime scene will look like, the explosive ordinance disposal team and FBI must create an actual explosion. Students who previously attended the course came back to help out by making 2,165 pounds of explosives placing it in a 1985 fire truck.

It's important for the students to understand how to build a bomb so they can know how to disarm one, according to Sgt. Larriva.

"The hardest part is finding a vehicle that would stay together after a blast that big," he said. "Luckily we found a heavy duty fire truck."

Getting to work

After detonating the bomb, the students started working the crime scene, first identifying the vehicle, finding out how much explosives were used and then putting the bomb back together. They gathered pieces of debris and bomb components as evidence and started analyzing their data.

"They take the information and try to recreate the scene the best they can, so if they had to present it to a jury they could paint the best picture possible," said Sgt. Larriva.

The last day of the week-long exercise was used to convince a district attorney from Los Angeles that the bomb was created with a malicious intent to kill.

According to Agent Miles, the class was successful. "This was the largest class we have ever done and it went great. The students loved it and the class critiques were fantastic," he said.

— Capt. Catie Hague, AFFTC Public Affairs

Left to right: a former student, trained in the large vehicle explosion class, mixes explosive materiel to place inside a fire truck at Edwards AFB, Calif. The fire truck goes up in flames after being detonated with 2,165 pounds of explosives. This is the largest explosion the FBI has produced in this training class. (Photos by Mr. Thomas Powell)

Band of brothers helps secure base

Brothers in arms isn't just an expression in the Oklahoma National Guard's 1120th Maintenance Company. When 135 members of the company arrived earlier this year to augment Security Forces personnel at Tinker Air Force Base, Okla., their number included brothers.

Sgt. 1st Class Phillip Cross and Staff Sgts. Don and Robert Cross have been absorbed into the 72nd Security Forces Squadron's Cobra Flight.

Together — wherever they go

Before coming to Tinker, Robert worked full time at the Oklahoma Army National Guard's Combined Support Maintenance Shop in Norman, although he drilled with his brothers at Sulphur.

"We're not treated any different than Security Forces," Robert said. "We stand in formation just like the Air Force and Navy and assist them in all their security forces duties."

Robert, a staff sergeant, said the Guard troops received "some top-notch training" from 72nd SFS personnel since arriving at Tinker, and the Guard members are working on getting their own shoulder flashes — UP for Unit Police.

Phillip enlisted June 24, 1978, viewing the Guard as good training for his civilian career. "I wanted to be a mechanic. That was my ambition in life and I could get a free mechanical education," he said.

His career goals realized, Phillip was managing a fleet of United Parcel Service trucks in Ponca City when the 1120th was called up for security work at Tinker.

It came as a surprise

Going on active duty didn't surprise Phillip, who had been waiting for orders for the past year. The location, however, did.

"I was sure glad to find out this is where we got activated to because I had visions of sand in my meals-ready-to-eat," Phillip said, recalling the 40 odd days the unit spent training in the desert during a 180-day deployment to Fort Irwin, Calif., in 1991. Operation Desert Storm ended before the 1120th could be sent overseas.

"This is one of the best places I could dream of," he continued. In fact, Air Force accommodations for their Army Guard brethren are "just like the Holiday Inn," Phillip said.

"This is the best duty I could ever ask for," agreed Robert. "We are treated so well here; I've never been treated this good anywhere. I've been to some nice places, don't get me wrong. They didn't compare to Tinker."

Robert was the first of the Cross brothers to join the Guard. It was Nov. 6, 1976.

"I was just a little snot-nosed 17-year-old kid when I got in," Robert recalled. "There was a parade and the Guard actually had a platoon marching in the parade and they had a recruiting booth."

Mother knows best

Robert admitted he knew nothing about the Guard when he signed on the dotted line. Because he was a minor, he had to get his mother's signature. He stayed in until 1988 and tried to re-enlist during Operation Desert Storm, but was locked out of the 1120th, which had already been called to active duty. Because he had been out of uniform for two months over the two-year limit, he stood to lose a stripe. If he entered a different unit, it would be as a specialist.

The Oklahoma Army National Guard's 1120th Maintenance Company is strong on camaraderie — and family ties. Included in its ranks, from left, are brothers Sgt. 1st Class Phillip Cross and Staff Sgts. Don and Robert Cross. (Photo by Margo Wright)

"I had three kids and a wife at home. I just couldn't afford to go. I could make more at my civilian job," Robert said. "Then, as soon as Desert Storm was over, they found a way to get me back in the 1120th as a sergeant.

"It might have been different if I was in another unit, but I'm in the best unit in the Army National Guard. I've turned down promotions three times in other units because I don't want to leave this unit. The 1120th has got a lot of camaraderie in it."

Following their example

Don, also a staff sergeant, marked his 18th year in the Guard April 1. He enlisted after seeing the opportunities opened for his brothers. "They've been to Germany and I knew it was the only way I was going to get to go over there," he said. "So I got in."

For the Crosses, the Guard is just another facet to their fraternal ties. Robert and Don are neighbors in Wayne. Don and Phillip both work on trucks in the Guard.

"We always have stayed in a close family," Phillip said. "We've worked together on jobs and now they [Robert and Don] live right next door to one another. There's very close family ties."

Robert has a son in the Navy, stationed at Pensacola, Fla. But in at least one branch of the Cross family, the family ties could well continue in the 1120th for another generation.

Phillip's 16-year-old daughter isn't old enough yet to enlist, but she's already thinking about the Guard as a secondary means for paying for college.

Don has sons ages 10 and 12.

"When they get old enough, it's their decision," he said. "But right now when they say, 'I want to get in the Army like you, Dad,' I say 'No, you want to get in the Air Force.'"

— Ms. Jeanne Grimes, OC-ALC Public Affairs

AF Band orchestrates aviation's first 100 years

Celebrating the 100th anniversary of powered flight, Air Force Band of Flight musicians at Wright-Patterson Air Force Base, Ohio, are working with five professional composers to set history to music.

This year marks the 100th anniversary of powered flight, and celebrations are scheduled across the nation to honor the Wright brothers' achievements. Band of Flight musicians were called on to host several events with the U.S. Air Force Museum, Wright-Patterson Air Force Base, Ohio, throughout the year.

But, since the band lacked sufficient music in their collection to perform the mission, they "looked for help from some professional Air Force friends in the music business," said Lt. Col. Alan Sierichs, band commander.

"My job as music director is producing a music program to deliver the message the museum would like to send during this celebration," he said.

Col. Sierichs enlisted five professional composers, three of which are former Air Force band members, to write the music for this year-long celebration. Once written, the music was shared with Air Force bands around the country to help them perform their mission.

Getting an early start

Preparations for the centennial celebration began early in 2001, when Col. Sierichs met with four of the selected composers. He said as a group, they toured the museum and studied the Air Force's history of powered flight.

"Each composer came away with a different perspective and approach to the centennial to help provide the band with music," he said.

Air Force Band of Flight's saxaphone section "gets down" during an April 2003 Aviation Art show opening at the United States Air Force Museum (Photo by 1st Lt. GailynWhitman)

Centennial celebration a community project

The Band of Flight's biggest project this year involves a combined concert with the Dayton Philharmonic Orchestra from Ohio. The orchestra asked the Band of Flight to join them for the closing piece of their centennial of flight concert set for May 11. As a result, Col. Sierichs said a piece needed to be written to combine both the orchestra and the band.

"This combination is something that has never been done before," he said. "The music had to be written specially for the event."

Col. Sierichs and Mr. Neil Gittleman, Dayton Philharmonic conductor, called on Mr. Ron Foster to compose the music. Mr. Foster is a retired Air Force band member known to both conductors.

His composition took nearly a year to write and required special sheet music to be developed to include instruments from both organizations, Col. Sierichs said. The result is called "On the Wings of Angels."

"It's a unique piece that has a bit of a twist," he said. "The Air Force band will be playing an unusual form of percussion instruments — aircraft parts such as brake drums and chimes made from bleed tubing salvaged from aircraft wings.

"Two propellers are going to be mounted and played, not only bringing the piece an interesting sound, but a wonderful visual effect," he noted.

"The combined concert will help tell the Air Force historical story," Col. Sierichs said, "and it is also a huge honor for the band."

"To be recognized as equals with the orchestra will most likely be the highlight of the year for band members," he said.

Art and music a beautiful combination

Regarding the composers selected to set history to music, Mr. Ken Miller, a retired band member and current Hollywood composer, was called upon for what Col. Sierichs called a unique assignment.

Mr. Miller is writing a selection for the museum's aviation art show openings.

Two of Mr. Miller's compositions were already heard this year by guests who attended the art show opening of Mr. Keith Ferris' work in January and guests who viewed works from a selection of artists in April, the band commander said.

Nearly 1,300 people attended the art show's April 12 opening and enjoyed the work of five noted aviation artists set to music, according to Mr. Charles Metcalf, the museum's director.

"The band outdoes itself every time," Mr. Metcalf said. "The music was a wonderful complement to these great works of art."

Mr. Miller wrote music for the academy band for nearly 20 years. According to Col. Sierichs, Mr. Miller's work on the centennial project was practically a donation as a continuation of his Air Force service.

Air Force Band of Flight vocalists Master Sgt. Shawn Stanley, Senior Airman Alyson Jones and Airman Justin Allen sing a song from their centennial of flight collection at a recent museum aviation art show opening. (Photo by 1st Lt. Gailyn Whitman)

Band of Flight goes Hollywood

Ms. Julie Giroux, another Hollywood composer and daughter of an Air Force member, signed on for the project. During her career she trained under Mr. Bill Conti, a Hollywood composer famous for the "Rocky" movies. After achieving success in Hollywood, Ms. Giroux chose to end her Hollywood career to pursue composing music for bands.

Col. Sierichs said Ms. Giroux provided the Band of Flight with a six-part suite of music with lyrics for the centennial celebration. "Her creativity gives a unique perspective to the Air Force's development of flight," he said.

The fourth composer, Ms. Lisa DeSpain, was never an Air Force band member nor were her parents Air Force members, but she has a history of composing music for Air Force bands, Col. Sierichs said.

Ms. DeSpain has composed two pieces for the centennial celebration. The first is a concert fanfare which Col. Sierichs said helps set the tone for a more formal concert program. The second piece was written to communicate the story of the Wright brothers' evolution from bicycles to airplanes. It is called "The Bicycle Shop" and is considered a novelty piece.

The final composer is another retired Air Force band member, Col. Sierichs said. Mr. Ed Hureau wrote the music which involves light, upbeat music for after-dinner shows.

According to the band's conductor, Mr. Hureau's music will be used for occasions when the museum is hosting special dinner functions.

Band features one of its own

The Air Force Band of Flight also has a composer of its own, the band commander said. Master Sgt. Al Wittig writes many of the bands tunes and will be contributing to the bands centennial of flight music program. Sgt. Wittig's work can be heard at more than 400 engagements throughout the year.

According to Col. Sierichs, it would be easy to book the band 365 days a year, but crew rest time is essential for morale.

He said this year will be a busy one for all Air Force bands and training is key to maintaining proficiency. Band members must train just like other members of the Air Force. The scheduler must build in training time along with the performances to complete the mission.

"What people see in public is just the tip of the iceberg," he said. "Band members spend an entire duty day setting up for a show prior to the event. During the evening, the band will meet to do sound checks which can take several hours. After an event is over, it takes another entire duty day to tear down the staging and move it on to the next location."

Many times the band is the first contact many civilians have with the Air Force. The importance of the band is evident in that their performance reflects on the Air Force as a whole, and how the Air Force does its job, Col. Sierichs said.

"Band members know it is their job to present the Air Force in the best possible light," he said.

— 1st Lt. Gailyn Whitman AFMC Public Affairs

Mr. Dan Hix, Arnold AFB, Tenn., software analyst, observes as Mr. Ernest Finney demonstrates the operation of an automatic cattle gate. He and Mr. Finney collaborated to create the gate. (Photo by Ms. Danette Duncan)

Software analyst becomes agricultural inventor

Farming and a little laziness combined to earn a software analyst at Arnold Air Force Base, Tenn., a patent for a self-opening gate that operates with no electricity, batteries, solar panels or remote controls.

Possibly revolutionizing life for cattle farmers, Mr. Dan Hix's gate, according to a patent search, is like no other. It opens and closes from both directions via a series of springs and two trip mechanisms — one on each side of the gate.

"It's not a 'bump gate,'" he said. "The only thing that touches any part of the gate mechanism is the tire of the approaching vehicle."

It's only practical

"I have friends that tease me about being lazy, too lazy to get out and open a gate," said Mr. Hix, who owns and operates a 300-acre family farm in middle Tennessee with 60 head of cattle.

"There's some truth to that," he said. "Think about when you move bales of hay. We use a tractor to spear them, pick them up and move the bale to a new spot. You have this big round bale on one side of the fence and your cattle on the other side."

Mr. Hix said this problem arises when trying to get the hay through the fence gate, while keeping the cattle away until he is ready to feed them.

A real hassle

"You pull up to the gate, get off the tractor, open the gate, run the cows back, run back to the tractor and get on, drive through the gate, stop and get off, run the cows back and close the gate, get back on the tractor and continue on," he said. "You do that every time you have to go through the gate, it's a big hassle. That was the problem I was trying to solve."

And with that problem fixed in his mind, his automatic gate was born. He said he discounted remote controls because farmers would need one for every truck or tractor he or she owned.

"Most tractors are open and aren't weather-proofed for remote controls, and they'd get wet or possibly dropped in the mud," he said.

Although Mr. Hix said the automatic gate makes some of his daily tasks easier, developing it did not happen overnight.

Future prospects

"I had to go through about six generations of designs and prototypes before I had success," he said. "But I have to say, it's been rewarding. It's been the most exciting thing that I've ever done outside of getting married and having a family."

Mr. Hix said he has talked with several major farm hardware equipment companies and one is currently considering marketing the automatic gate across the United States and in Canada.

— Ms. Danette Duncan, AEDC Public Affairs

Tiny pocket flags signify support of family, friends

"A flag for your pocket so you can always carry a little piece of home," says the enclosure card on the free miniature folded pocket flags being sent to deployed military members.

Ms. Brenda Brummer, a Defense Department civilian employee at the Air Force Research Laboratory Contracting Directorate at Kirtland Air Force Base, N.M., makes and distributes the palm-sized folded flags with messages to deployed military and Guard members in the Pocket Flag Project.

A gift for our troops

"I'd love to see more people involved," Ms. Brummer said. "People ask if the flags are for sale. We're not selling these for a profit, these are gifts for our troops."

Working alone for the Christmas season in 2001, she provided 275 flags to the Family Support Services at the 150th Fighter Wing, 100 to people onboard the USS Bon Homme Richard and 250 to Holloman AFB, N.M. New Mexico military installations have requested and received these flags many times since then.

Since April 2003, her project has gained help from three Albuquerque American Legion Auxiliaries and spouses from the Kirtland community.

In December 2002, Ms. Brummer worked with a local high school's Key Club and spouses of the Albuquerque Police Department employees who are Guard and Reservists to organize flag-making. She says that the project is also happening at a base in Cuba and several Germany locations, including Ramstein AB.

Boosting morale

Ms. Brummer estimates at least 200,000 flags have been distributed since she launched the project locally. "It's a nice gesture and I think it boosts Guard members' morale," said Ms. Therese Sanchez, Family Readiness manager for the New Mexico Air National Guard at Kirtland.

The project was devised by Ms. Brummer's sister, Ms. Lawanda Ford, a Cub Scout den leader in Colorado. After speaking with other Boy Scout leaders who were veterans of Vietnam and the Gulf War who carried small, folded flags, Ms. Ford launched her own patriotic support project and presented the pocket flags to Reservists late last year.

When Ms. Brummer visited her sister during the Christmas holiday in 2001, she became involved helping her and then began her own project at Kirtland.

And making the tiny flags became a mission for her after the Sept. 11, 2001, terrorist attack. When she speaks about the how-to of the project, she's all business. But, when she explains why she gives so much time, effort and money to her project, her eyes cloud with tears.

"I never thought I would see such a tragedy and such an all-out effort to defend our soil in my lifetime," she said. "I felt like I needed to do something. We all lost and it's affected all of us in some way...this was such a sweet idea to let the military who are out there defending our country, our traditions, freedoms and our lives with theirs, know that we're supporting them and that we care.

"It helps me to know that I'm working on something that lets these people know we support them and we're not forgetting what they're doing for us." And her efforts on the project have become even more relevant as deployments increased during the war in Iraq.

A little help from her friends

Pocket flag materials are donated because the flags are given free to military people, she said. And she has personally paid for numerous bolts of flag fabric, purchased thousands of small bags and cards for the flags and paid mailing costs. All of this in addition to volunteering her time preparing and mailing flags.

Her sister created an online site, www.geocities.com/pocketflagproject/, that details how to participate. The site provides information on how to receive fabric, make the flags and distribute them.

— Ms. Jennifer West, 377th ABW

Ms. Brenda Brummer, an employee at Kirtland AFB, N.M., distributes flags she made to show her support of the military. Since she began her project, more than 200,000 flags have been given away.

Brooks champion on pace to becoming a great golfer

It didn't take a stroke of genius to convince 2nd Lt. Linda Jeffery, Brooks City-Base, Texas, that her golf stroke is extraordinary. All it took for her to succeed, however, was an early realization that she was destined to play this game.

After helping the United States Armed Forces golf team win the military version of the Ryder Cup in 2002, this three-time college All-American golfer has demonstrated a quality of play.

Fullfilling a need

"I never played golf before. They needed someone to play on the varsity team," recalls Lt. Jeffery about her early days in a sport that she adopted as a high school student. It didn't take much to convince her to play because she admired former LPGA star Nancy Lopez, who put women's professional golf on the national map. "She was my hero. I modeled my play after her," Lt. Jeffery said.

Showing no regrets

The future 311th Mission Support Group executive officer never regretted her decision to wedge in golf between her two primary high school sports that she also lettered in: soccer and softball. She attributes part of her initial success in golf to her powerful softball swing.

Relying on her trademark "flying elbow" follow-through golf swing, this natural athlete began piling up honors. In each of her last three years, she was named All-District and earned her team's Most Valuable Player Award.

"I earned a golf scholarship to Tarleton State University, but after one semester there the school cancelled its golf program," she said. Undaunted by the setback, she eventually benefited from a "stroke of luck" by returning to her hometown to play golf at Hardin-Simmons University. She helped them win their first women's NAIA national championship in 1994.

"I always finished in the top five in all the tournaments I played in. In my senior year, I lost only one tournament out of five," said Lt. Jeffery, who was the number one golfer at Hardin-Simmons for three years. Besides her selection as both a NCAA and NAIA All-American, her perfect 4.0 grade point average earned her academic All-American status and suma cum laude honors.

At graduation in 1996, she had no intention of pursuing a military career. What she wanted to do was play golf.

"I went to live with my sister at Grand Forks Air Force Base, N.D., and worked at a golf course as the pro," she said. The move was a turning point. She met her future husband Dave, an Air Force major, and they were married on Veteran's Day, Nov. 11, 1996.

She had always wanted to fly an airplane, and got her chance to become a military pilot when she earned an Air Force ROTC commission at Southwest Texas State University in December 2000. "My husband was very supportive," she said of her spouse who by then had transferred to Randolph AFB, Texas. She eventually discovered that she "liked flying, but did not love it."

She transferred from Laughlin AFB, Texas, to Brooks in November 2001.

Once here, she immediately resumed her golf career. Two years earlier, Lt. Jeffery had regained her U.S. Golf Association amateur status.

Winning ways

In May 2002, she played in the USGA Women's Open Qualifier in Houston. A month later, she finished fourth in the San Antonio Women's Golf Tournament. Her best score ever was a 67 in a Phoenix tournament.

Naturally, she made the Brooks varsity golf team, and at the Air Force Materiel Command tournament, she became the women's division champion. Lt. Jeffery made the Air Force golf team at Luke AFB, and was the top lady golfer at the Armed Forces Championship at Fort Bliss, Texas, earning her a spot on the U.S. Armed Forces team, one of only four women on the 14-member squad.

Lt. Jeffery saved her best play for the world military championship called the Counseil International Du Sport Militaire. "I didn't lose any matches in four days," she said. The U.S. team defeated South Africa and Canada for the world title.

While Lt. Jeffery has no plans for a future pro career, she is committed to her version of 'climbing the Mount Everest of golf.' "I want to defend my title," she confesses about her competitive zeal which to her is "par for the course."

— Mr. Rudy Purificato, 311th HSW

2nd Lt. Linda Jeffrey, Brooks City-Base, Texas, proved in 2002 that she is one of the best lady golfers in America's Armed Forces, helping the Air Force and Defense Department teams to earn win championships. (Photo by Mr. Rudy Purificato, 311th HSW)

Mr. Paul Phillips received a top-level NASA award for safety. (Photo by Mr. Rob Bardua, AFFTC)

AF civilian receives top NASA safety award

EDWARDS AIR FORCE BASE, Calif. — For the second time in three years an Air Force Flight Test Center member here has received one of NASA's highest safety awards.

Mr. Paul Phillips, a member of the center's Access to Space Office, recently accepted the Quality and Safety Achievement Recognition Award during NASA's Annual Continual Improvement Reinvention Conference in Alexandria, Va.

The award recognizes employees for significant quality improvements or safety initiatives within NASA products, programs, processes and management activities. Each of NASA's 10 centers nominate one individual for four award categories in the QASAR program.

The "Best of the Best" are honored annually at the agency level. Mr. Frederick Gregory, NASA deputy administrator, presented the award in the non-NASA government category to Mr. Phillips, recognizing his contributions toward enhancing the quality and flight-safety process of the X-37 and X-38 programs.

— Reported by AFFTC Public Affairs

Eglin food service wins John L. Hennessy trophy

EGLIN AIR FORCE BASE, Fla. — The 96th Services Dining Facilities here was recently notified they won the prestigious John L. Hennessy Trophy, an annual award presented to the Air Force installation having the best food service.

Eglin's food service program has deployed two-thirds of their troops to various locations while maintaining high standards and catering to Team Eglin's daily culinary needs.

— Reported by AAC Public Affairs

Edwards Keystone Club teens take the 'Gold'

EDWARDS AIR FORCE BASE, Calif. — The Edwards Teen Center Keystone Club has achieved Gold Level membership status — only the second Keystone Club in the Air Force and the third in the entire Defense Department to do so.

The national TEENSupreme™ Keystone Club provides teens with leadership opportunities and teaches life skills to prepare them for adulthood. The program offers an annual conference that brings together teens from across the nation to discuss pertinent issues.

— Reported by AFFTC Public Affairs

Eglin safety office captures two AF safety awards

EGLIN AIR FORCE BASE, Fla. — Air Armament Center experts here recently earned dual honors, gathering the Air Force's Chief of Safety Special Achievement Award and the Safety Plaque in the Explosives Category for the last fiscal year. The four-member staff receiving this award consists of Master Sgt. Richard Henry, explosive ordinance technician, and Mr. Donald Crum, weapon's loader; along with Mr. Mark Alvarez, munitions systems specialists; and contractor Mr. Richard McKern, also a loader.

The award-winning quartet oversees safety operations at five wings; units at Wright-Patterson AFB, Ohio, and Holloman AFB, N.M. Air Force Research Laboratory, Army Navy and special forces units are also included in that group.

— Reported by AAC Public Affairs

Tinker Ground Safety named best in Air Force

TINKER AIR FORCE BASE, Okla. — An outstanding achievement award from the Chief of Staff of the Air Force recognizes Oklahoma City Air Logistics Center safety office for providing critical support for Air Force warfighter capability.

Tinker produces 96 aircraft, 752 engines, provides depot-level maintenance for 70,000-plus weapons system components annually and oversees the safety program for more than 12,000 employees and 41 multiservice associate units, topping the workforce at 18,000. From Oct. 1, 2001, through Sept. 30, 2002, the base experienced its lowest civilian injury rate ever. On the military side zero workdays were lost due to a mishap.

— Reported by OC-ALC Public Affairs

Eglin man's ingenuity doubles his reward

EGLIN AIR FORCE BASE, Fla. — A senior non-commissioned officer here was recently awarded two $10,000 checks for aircraft maintenance improvements by the Air Force's Innovative Development through Employee Awareness program.

Master. Sgt. Warren Gould of the 33rd Fighter Wing's Quality Assurance Office suggested cutting the wing's F-15 engine turbine servicing in half, from 400 to 200 hours, and drilling out square corners on bleed air duct expansion slots to cut engine failures down by 25 percent. His ideas will save the Air Force more than $600,000 in aircraft maintenance repair costs and hundreds of man-hours collectively each year, according to wing officials.

— Reported by AAC Public Affairs

SAMPE honors ManTech's Abrams with Fellow nod

WRIGHT-PATTERSON AIR FORCE BASE, Ohio — The Society for the Advancement of Materials and Process Engineering, better known as SAMPE, has elected Dr. Frances Abrams a "Fellow of the Society." A senior engineer for the manufacturing technology division of Air Force Research Laboratory's Materials and Manufacturing Directorate, she has long been considered one of the leading experts in the world in the processing of advanced composites.

Her selection as a Fellow celebrates a long history of exemplary public service through the application of knowledge in composite processes that improve, sustain and cut the manufacturing costs of weapon systems.

— Reported by AFRL/ML Public Affairs